8-22-2006

DDASaccident547

Humanitarian Demining Accident and Incident Database
AID

DDAS Accident Report

Accident details

Report date:	02/02/2008	**Accident number:**	547
Accident time:	11:05	**Accident Date:**	22/08/2006
Where it occurred:	Task # 709, Nr Paktia Kot, Ward 12, Central District, Kabul Province	**Country:**	Afghanistan
Primary cause:	Field control inadequacy (?)	**Secondary cause:**	Management/control inadequacy (?)
Class:	Missed-mine accident	**Date of main report:**	28/09/2006
ID original source:	OPS-27/412-06	**Name of source:**	UNMACA
Organisation:	[Name removed]		
Mine/device:	PMN AP blast	**Ground condition:**	dry/dusty grass/grazing area rocks/stones
Date record created:		**Date last modified:**	02/02/2008
No of victims:	1	**No of documents:**	2

Map details

Longitude:		**Latitude:**	
Alt. coord. system:	WGS 84	**Coordinates fixed by:**	GPS
Map east:	E 069 20 24	**Map north:**	N 34 32 50
Map scale:		**Map series:**	
Map edition:		**Map sheet:**	
Map name:			

Accident Notes

inadequate area marking (?)

inadequate metal-detector (?)

inconsistent statements (?)

mine/device found in "cleared" area (?)

partner's failure to "control" (?)

pressure to work quickly (?)

protective equipment not worn (?)

visor not worn or worn raised (?)

Accident report

The report of this accident was made available in August 2007 as a PDF file. Its conversion to a text file for editing means that some of the formatting has been lost. The substance of the report is reproduced below, edited for anonymity. The original PDF file is held on record. Text in [ ] is editorial.

Cover letter

To: Chief of OPS/DPM, UNMACA

From: Area Manager UNAMAC Kabul

Date: 28 Sep 2006

Subject: Investigation Report

Attached please find investigation report along with its supporting documents of Demining Accident (CA-85) happened on [The victim] deminer of ATC MCT-09 at MF 709 in Pulicharkhi area of Kabul City on 22 Aug 2006. [Name removed] QM Assistant and [Name removed] OPS Associate for AMAC. Kabul carried out the investigation.

Findings and recommendations are mentioned in this report, forwarded for your information and further action.

Demining Investigation Report

Date of incident/accident: 22-08-06, 11:05 hrs

Date of report: 28 Sep 2006

Place of accident: Nr Paktia Kot, Ward 12, Central District, Kabul Province

GR: WGS 84; E 069 20 24: N 34 32 50: GPS

Device that caused the incident/accident: PMN AP blast

Area was cleared in 2001 by [same demining agency].

History of the Minefield:

MF# 01/0101/012/709 is located at Pule Charkhi village, ward-12 of Kabul city. This is part of impact survey ID-1088, SHA- 4, which has been reported by ALIS as low impacted community then confirmed by LIAT as medium impacted due to recent victims. Type of land of this MF is grazing. On 1981, this area was contaminated, at first time, by the Russian forces in order to make secure the bunker 22 located here from penetration of the then anti government forces and established an Anti personnel Mine belt around the bunkers. MF# 709 covers a part of this belt. ATC MCT-14 on 30 Sep 2001 completed clearance of this MF. As soon as clearance of this area completed it was the end stage of Taliban regime and during take over of Kabul city by northern alliance this area was re-mined by military forces through re-establishing this belt by planting AP mines, installing concrete pillars attached with barbed wires to prevent penetration of local people. Due to mine accidents on a civilian and two animals in year 2005, which was investigated by AMAC and found that this area is contaminated by mines need resurvey and clearance. Therefore, resurvey was conducted immediately. Then, on 15 Aug 2006, due to request of WSP for construction of Kabul-Surobi

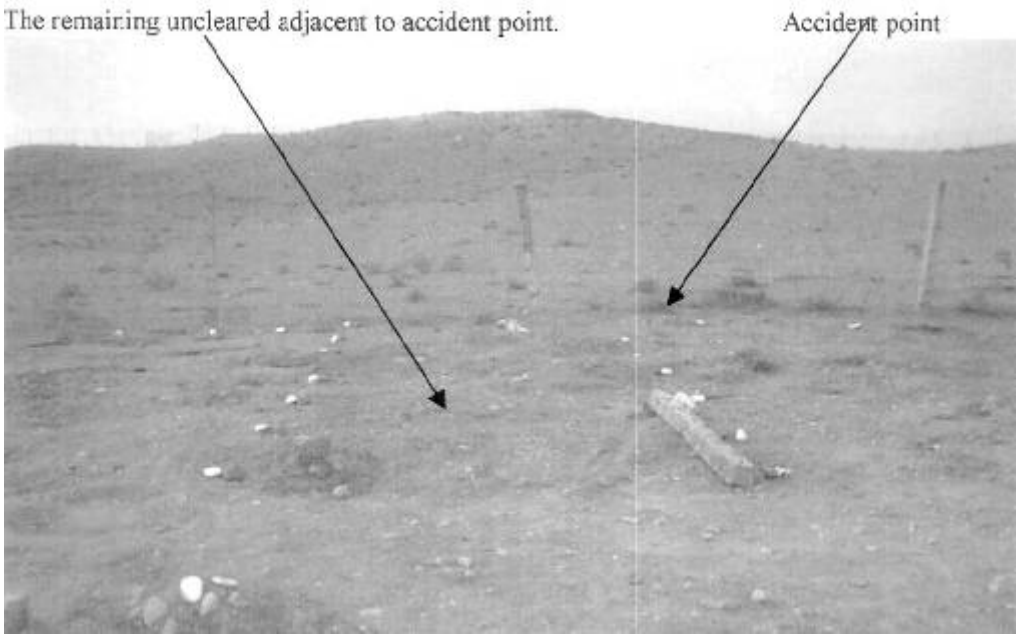
highway, which a portion of this MF covers their requested area was started by ATC MCT-09. Marked area of this MF is 7219 sqm Till the accident day about 930 sqm of the task has been cleared and 33 PMNs have been detected. On second day of team work in this MF a PMN mine detonated on a local's goat.

Description of the incident/accident:

On 22 August 2006 at 1105 hrs a PMN mine detonated on [the Victim] deminer of party 10, section -04 of ATC MCT-09 while he was working in the site stepped on the mine. At the same day the deminer has detected a PMN mine at 10:05 am, after marking of the mine by mine marker the deminer has continued to work and around 11:00 the same deminer detected another PMN mine as he marked this mine by a small marker. After detecting this mine the relevant section leader called him to stop operation and come out from the work site. (Normally teams are destroying the discovered mines/UXO during end hour of their daily operation). After this announcement he collected the last lane rope and then started marking of the site. The section leader insisted on deminer [the Victim] to leave site urgently. While he was turning back he stepped on the detected mine, as mine detonated on him resulting his right leg amputation and receiving multiple injuries on his body especially on his left hand. This accident happened at 11:05. In 10 minutes medical first aid was applied on the patient, at 11:17 the patient made ready for shifting to the hospital, the distance of the worksite to the designated hospital was about 23 km, taking the patient from site to the hospital took 30 minutes. The patient was admitted to the Shahr-i-Now Emergency Hospital, the patient health condition for the time being is satisfactory.

[The victim with amputated right leg and injured left leg and left hand.]

Site conditions: The terrain was hillside. The ground was soft. The weather was clear, calm and warm. There was no or light vegetation.



[The accident site was very open and relatively flat.]

Team and task details: The team had been at the site for six days. Working hours were from 0600 hrs to 1200 hrs. The deminers had a break each 30 minutes, but in the accident day the party changed two times in 5 hours of work. Detector in use: MIL-D1. Hand-tool: bayonet. The Victim was not dressed with PPE when the accident happened. The last leave was from 28 July 2006 to 07 August 2006. Salary for the men has not been paid on time.

Medical reaction time: The paramedic was at the accident site by 11:06. The Victim was treated until 11:17, The victim was driven 23 Km to hospital from 11:17 to 11:47. Total CASEVAC time 42 minutes. Last time a CASEVAC drill was done: On 10th July 2006 at TV hill at Kartai Sakhi when the team was working in another task.

Conclusion

1. The victim has detected a PMN mine at 10:05 and marked it by mine marker then continued to work till detecting the second mine at 10:55. As soon as the deminer found the second mine, marked it by a small marker. Then according to the order of the relevant section leader the deminer stopped his clearance activity and started to collect the lane rope and then start to marking of the lane, at the last stage of marking section leader again called him to hurry in his work as at this time the accident happened.

2. In about 5 hours work in the site two times the party has been changed; whereas, the parties should be changed after each 30 minuets work.

3. The party has marked the second detected mine with a small marker as it was not properly visible. Since the mine marker was not properly visible and he was in hurry, during marking of lane the deminer has stepped on the mine.

4. When the deminer was busy in marking the relevant section leader has called the deminer to hurry on his work, the voice has drawn the deminer attention and concentration to other side, since at this time he was too near to the detected mine he mistakenly steps on the mine and the accident occurs.

5. The deminer has detected the first mine at 10:05 am and the second at 10:55 am it shows that the deminer has worked for a long time without break and refreshment, this had made the deminer too tired as it was the other cause that he stepped on the mine.

6. From the statements of the team command group it was extracted, that the team command and control was too poor as there was no one to control the deminer work. Team leader. assist team leader and the relevant section leader confessed in their statement that we were busy in other places while the accident happened, which shows lack of command and control and coordination among them, however this party was working on the mine belt and needed more attention.

7. Team leader, assist team leader and the section leader and the victim deminer partner in their statements ascertained that we do not know how and why the accident occurred. This shows either they are reluctant to their work or they have reached to an agreement to say the same points and intentionally hide the facts.

8. As we checked demining kits of the team parties, most of the parties had just one mine marker in their demining kits, so. if the parties found more then one mine there would not remain another mine marker with the party to mark the second detected mine therefore they mark the second detected mine either with stones or other unfamiliar thing which are not easily distinguishable and visible for the team members.

9. After two days from occurrence of the accident our QM1T-12 quality checked the area that the party had cleared at the accident day, they found more than four signals in a specified cleared area this shows that internal quality control was not properly conducted by the team command group.

10. The team had not correct recording system. Team leader of the team had not recorded the daily explosives expenditure of team when we compared the explosive expenditure records of the assist team leader with the relevant section leader we saw that there is great difference in their records. These records were important for the investigation team in finding some facts regarding the accident.

11. As we checked the accident site we saw some evidences of excavated signals near the accident point in un-cleared area which were refilled by soils this shows that the party was in hurry to clear a small un-cleared area near located adjacent to the accident point, till end of operation

12. In the accident initial report, signed by ATC relevant field officer, the accident has occurred when the party was working in the site which opposes assertions of the team command group that the accident has occurred after ceasing the party activity in the site.

13. As we checked the team records, we saw that the NGO internal QA cell did not conduct internal QA/QC as it is required.

From the facts that have been mentioned in article 5, 9, and 11, we can extract that this accident was a missed mine accident.

Recommendations

1. The NGO should improve its Internal QA/QC system. Just by establishing an effective and efficient Internal QA/QC system we can improve the quality of the work and enhance work productivity thus the team command group should conduct internal QC of the cleared area on a daily basis and in accordance with set procedure and the NGO internal QA/QC cell should regularly visit teams in their worksites and ensure that they are working in accordance with the SOP.

2. The team command group should not force the deminers to hurry up in their work, but they should strictly control the deminers to work in accordance with procedure.

3. One mine marker is not enough for one party; the NGO should issue for each party three mine markers.

4. Team command group should have coordination among them and control deminers with full responsibility, section leaders should control his relevant parties and team leader control two section of the team and as well the assist team leader .

5. The NGO and the team command group should be cooperative with the investigation team in finding the facts as we saw the NGO internal QA cell intentionally further complicated the matter for the investigation team in hiding the facts and changing the original shape of the accident point.

6. The team recording system does not meet the requirements, it should be improved.

7. The team command group should strictly control the team deminers and take the responsibility of the deminers work.

8. The team command group should not force the deminers to work for a long time in the site. The deminers should work in turn and have break for rest periodically. Working one deminer for long time creates such unprecedented situation.

Attachments: [Held on file]

Statements by Injured Members Statements by Witnesses Statements from Dr. at Hospital Sketch Plan of Incident Site Photographs of Injuries

Injury data sheet(s) Photographs of the Site

Copy of Survey Map

Copy of Incident Report

Copy of Accident Report

Copy of Medical Report

Copy of Injury Card

Technical Details of Device

Initial letter from demining agency

Date: 22.08.2006

File No 24

To: KABUL AREA MANAGER

From: FIELD OFFICER FIELD OFFICE A

Subject: DEMINING ACCIDENT REPORT

1- ATC, Field office A MCT —09

2- Location Province Kabul District Ward 12 Village Puli Charkhi

MCPA task No AF-01-0101-012-709

3- DATE 22.08.2006 TIME 11:05 AM

4- [Name removed Deminer Team No 09

5- Amputation of RT leg also RT hand and left leg got injured

6- First AID done then moved to hospital

7- Casualty was stable.

8- Casualty priority No 1

9 – The incident occurred in Mine Field During Clearance.

10 – 23km from task to hospital.

11- A- the causality occurred in Surveyed area.

B- AP (PMN)

Signed.

From IMSMA forms

Victim DoB: 1986

Sketch shows right lower leg amputation: other injuries to upper limbs and lower limbs.

Follow up letter

File: OPS/03/01-14

Date: October 29, 2006

To: See distribution list

From: Chief of Operations and Deputy Programme Manager UNMACA, Kabul

Subject: Follow up action on demining accident happened to the deminer of ATC in task # 709 in Pulicharkhi village, Ward 12 of Kabul city

Reference: Demining investigation report File: OPS-27/412-06 dated: September 28, 2006, of UN-AMAC Kabul.

A demining accident happened on August 22, 2006 in clearance lane of [the Victim] the deminer of MCT-09 of ATC in task # 709 of Pulicharkhi village, Ward # 12 of Kabul city, causing right leg amputation and multiple injuries to the deminer's body.

The investigation report concluded that, the accident occurred because of poor supervision and control by command group and carelessness on behalf of the injured deminer, as he discovered a PMN mine on 10:05 and marked it with a mine marker (as the area located close to the main road, therefore they have been conducting demolition at the end of daily work) and then he discovered second PMN mine on 11:00 and marked this one with a mark reader because of lack of second mine marker in the party and due to the instruction of section leader he stopped further detection and started to mark his cleared lane while he was not equipped with PPE, stepped on discovered mine and the accident occurred. The investigation report further added that, the parties were changed just for one term in 5 hrs and also when the clearance lane checked by investigation team, they found four signal in a small area, during checking the documents the investing team found a great difference between the explosive records of assistant team leader and section leader.

Recommendations:

I. The team command group especially section leaders should not force deminers to hurry up in their work, but should strictly control deminers during clearance operation in order to ensure the implementation of SOPs.

II. The command group should keep a closed coordination among them and keep a proper record of their activities and conduct the QC on proper basis.

III. The command group should be cooperative with investigation team to reveal the facts, as the aim of investigation is to share the issue with all to prevent field staff from further accidents.

IV. The ATC should improve their QA/QC system to ensure the quality of work.

V. Refresher training should be held for the team members.

Distribution List

With attachment: AMACs (5), Sub AMAC Gardez and Director ATC

Less attachment: [All demining groups in-country]

Victim Report

Victim number: 721
Name: [Name removed]
Age: 20
Gender: Male
Status: deminer
Fit for work: not known
Compensation: Not made available
Time to hospital: 42 minutes
Protection issued: Frontal apron
Long visor
Protection used: None

Summary of injuries:

minor Body

minor Hand

minor Leg

AMPUTATION/LOSS: Leg Below knee

COMMENT: No Medical report was made available.

STATEMENTS

Statement and Witness Report 1: the Victim

Q1. Please explain how the accident occurred?

A1: I detected the first mine around 10:00 am and marked it by mine marker then I continued my work as usual. In the accident lane I found the second mine and marked it by a small mine marker. At this time our section called work cease. As I collected the lane ropes and placed at cleared area then in accordance to the section leader instruction I started marking of the lane and reached to the detected mine. The section leader again voiced hurry up and withdraw from the site and drink your tea since a mission will come at this time I turned my face as the accident occurred. At this time my partner according to the section leader instruction was busy for picking of the cleared area bushes.

Q2. How many mine markers you had in your part mine kit?

A2. We had two mine markers in our demining kit, one big and one small.

Q3. Were you dressed with PPE while the accident occurred?

A3. Till finding the second mine I was dressed with PPE, but during marking of the lane I was without PPE.

Q4. Whether your section leader had told you to hurry in work?

A4. No.

Q5. In a part of un-cleared area near the barbed wires were some signs of excavation, had you worked on it?

A5. I have not worked at that side. My partner may has worked at that place, I am not aware of that.

Q6. After the accident our QM IT-12 quality controlled your cleared area near the accident point and found some missed signals, would you please clarify the reasons?

A6. The reason is low voltage of my detector batteries.

Q7. Whether your section leader quality controlled your cleared areas on a daily basis?

A7. One day ago, the team leader had checked, but in my turn the section leader has not checked.

Q8. Would you please explain the cause of the accident?

A8. During the hot weather the work period should be short; hurry in work is not good. From work commence to accident time just two times the parties changed. The parties should be changed after each 30 minutes.

Statement and Witness Report 2: Team leader

Q1. Please explain how the accident occurred?

A1. I was controlling parties of section one, while I heard the voice of explosion. I was about 300 meters far from the accident point. My assistant [Name removed] was controlling the parties of section two and four. The accident happened at 11:05 am.

Q2. How much is the size of your task, when your team started clearance of this task, how many working days you have expended in this task, how many mines your team has detected in this task and how much area of the site has been cleared by your team till now?

A2. On 15 Aug 2006. Clearance of the task was started and the task size is 7219 sqm. About 930 sqm and 33 PMN been detected in this area so far and we have worked for 6 days in this task.

Q3. In your opinion which mistake of the de-miner has caused the accident?

3. In my opinion the deminer mistake caused the accident. The detonated mine was discovered by the victim [Name removed]. The assist team leader was informed from detection of the mine by the relevant section leader through VHF radio. Hearing the accident voice, I instructed the team assistant to stop the party work. The section leader according to our instruction had pulled out the party from worksite to cleared area. I think that the deminer has gone again to the party worksite for taking any forgotten thing and on his return has stepped on his detected mine so it was the mistake of the victim that stepped on his own detected mine.

Statement and Witness Report 3: Medic

Questions:

1. Please explain all the steps of Medical First Aid that you applied on the patient?

2. Which parts of the victim body has received injuries?

3. How much is the distance of your worksite to Shahri Now Emergency Hospital and how much time took his shifting to the hospital?

4. Where is the patient now and how is his health condition?

Answers:

1. Hearing the voice of the explosion at 11:05 am, I moved toward the accident point and shifted the patient by stretcher to FMU for applying medical first aid. Applying all steps of first aid on the patient, he made ready for shifting to the hospital in about 5 minutes and was shifted to Shahri Now Emergency Hospital.

2. The patient right leg had amputation and his left hand had injuries.

3. The distance between our worksite to the Emergency Hospital is about 15 kilometres and his shifting to the hospital took about 40 minutes.

4. The patient is in Shahri Now Emergency Hospital and his health condition is satisfactory.

Statement and Witness Report 4: Assistant Team Leader

Questions:

Q1. Please explain how the accident occurred?

A1. About 10:50 am the relevant section leader informed me that deminer [the Victim] has detected a mine. I instructed him to properly mark it and stop the party activity. Then I moved toward party one of section-2, at this time I heard the voice of accident and moved toward the accident area to assist the team nurse in applying medical first aid. After applying medical first aid team leader accompanied the victim transfer to the hospital and I handled demolition of the remaining detected mines.

Q2. As you said the mine was detected at 10:50 and detonated at 11:05. what was doing the de-miner doing at this 15 minutes interval?

A2. At that time I was busy in control of section-02, the activity of the party on which the accident happened and the party was busy in collecting demining tools as the accident occurred; further information is with relevant section leader and the victim.

Q3. Whether you stopped the work of all team at 10:50 am or just stopped activity of the accident involved party?

A3. I only stopped work of the victim party which was working on the mine belt.

Statement and Witness Report 5: Section Leader

Q1. Please explain how the accident occurred?

A1. When deminer [the Victim] declared detection of mine, I moved from my control point toward the detected mine and saw that the mine is PMN. I told him to mark the mine then informed team assistant, team assistant advised to mark the site and cease the work of the related party, according to the assist TL order I instructed the party members to collect their demining tools and leave the worksite then I moved toward other party for announcing work cease at this time I heard the voice of mine detonation.

Q2. Please specify why the accident happened?

A2. I pulled the party out of worksite. May he has returned to the worksite for taking any forgotten personal or demining tool without my permission.

Q3. Where the accident happened at cleared or un-cleared area?

A3. The deminer may has entered mistakenly to un-cleared area for taking the forgotten thing.

Q4. Whether the detonated mine was detected or a missed mine?

A4. I ordered the party deminers to cease the work, collect their tools and leave the worksite then I moved toward another party, at this time the deminer may mistakenly has entered un-cleared area as the accident happened?

Q5. How old the victim was and how long he has worked as deminer and whether you had confidence on his work experience or not?

A5. He is about 20 or 21 years old and it is about two years that he is working as deminer in this team. Yes he had good demining experience.

Statement and Witness Report 6: partner deminer

1. Please explain how the accident happened?

2. Which mistake of the deminer caused the accident?

3. Whether the area on which the accident occurred was cleared or not, if was cleared then why the accident occurred there?

4. How many mines your party detected in this area and what was their type?

Answers:

1. I was setting in the rest area as [the Victim] called mine, the section leader approached to him and the mine was marked and the demining tools was shifted to safe area, section leader

called me to assist in collecting the de-mining tools as soon as I wanted to shift the tools, the accident happened.

2. I was apart from him, I did not know how the accident occurred, I think he had forgotten some thing in the site and had come for its taking as the accident occurred.

3. The mine was detected and marked, but was not disposed of.

4. Two mines have been detected by our party in this area.

Analysis

The investigators decided that this was a “Missed mine” accident but do not explain why and were a little inconsistent in their conclusions. However, it is classed as a “Missed-mine” accident in deference to their opinion.

The primary cause of this accident is listed as a “Field control inadequacy” because the field controls were entirely inadequate. The Victim was allowed into a minefield without PPE and was ordered to hurry up repeatedly. The field supervisors denied responsibility and were not co-operative with the investigators.

The secondary cause is listed as a “Management control inadequacy” because the managers of the demining agency are responsible for the selection training and quality performance of their field supervisors.

The investigators did not check the Victim’s claim that his metal-detector did not work properly. This is the second investigation in which this claim has been made. All metal detectors need to be reset as the temperature rises during a day, and some become unreliable when the temperature becomes too high. It is possible that the detector training provided by the demining agency was not comprehensive.